

Proceeding: **IN THE MATTER OF DEPLOYMENT OF WIRELINE SERVICES OFFERING A** Record 1 of 1
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Submission Type: **CO** Submission Status: **ACCEPTED** Viewing Status: **UNRESTRICTED**
Subject:
DA Number: Exparte Late Filed: File Number:
Calendar Date Filed: **09/25/1998 5:24:31 PM** Date Disseminated: Filed From: **INTERNET**
Official Date Filed: **09/25/1998** Date Released/Denied: Initials:
Confirmation # **1998925857342** Date Filed:

DOCKET FILE COPY ORIGINAL

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98-147

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of:)
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Deployment of Wireline Services Offering
Advanced Telecommunications Capability

CC Docket No. 98-147

**COMMENTS OF
THE AD HOC TELECOMMUNICATIONS
USERS COMMITTEE**

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September 25, 1998

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SUMMARY

The Ad Hoc Telecommunications Users Committee (the "Ad Hoc Committee") strongly supports the basic, pro-competitive approach the Commission has proposed to stimulate the deployment of advanced telecommunications services. Members of the Ad Hoc Committee are large users of telecommunications services who view the timely deployment of advanced services as critical to their businesses and society in general. For over two decades, the Ad Hoc Committee has been a firm advocate of competitive telecommunications markets; and Commission precedent is replete with cases in which competition has produced significant benefits for users of telecommunications services and products. The Commission's proposals in this proceeding are consistent with that experience and should produce similarly beneficial results for consumers of advanced services, provided that sufficient competitive safeguards are adopted to prevent ILECs from leveraging their control over the "last mile" to disadvantage competing advanced serviced providers. While the Commission has proposed a number of safeguards that it should adopt, it should also consider other safeguards that are proposed in these Comments.

The Ad Hoc Committee supports the Commission's proposal to give the incumbent local exchange carriers ("ILECs") the choice between (1) providing advanced services directly, subject to the regulatory requirements and obligations of dominant ILECs, or (2) providing such services through separate subsidiaries that would not be subject to the requirements of Section 251(c) or

several other regulatory obligations. This approach, combined with the Commission's proposed competitive safeguards and expanded collocation requirements, should provide meaningful incentives for the ILECs to deploy advanced telecommunications services, while encouraging the competitive entry in the advanced services market.

The deployment of advanced services has been slow in spite of evidence of demand for such services, as exemplified by the explosive growth of Internet usage and the intense competition in the adjacent computer, modem, and Internet backbone markets. Although the demand for advanced services is difficult to quantify presently, if the advanced services market were competitive, supply would satisfy demand. However, the provision of advanced services is not competitive because the ILECs are the only potential suppliers of such services in most markets. If the ILECs do not offer advanced services, it is difficult, if not impossible, to gauge the demand for those services. Because the local exchange/access services markets lack effective competition and the ILECs retain monopoly control over the local loop, the deployment of advanced services will require measures aimed at reducing or eliminating entry barriers to open the advanced services markets to competition.

The ILECs appear to view advanced services and packet switching as threats to their embedded circuit-switched networks. An additional disincentive for ILEC deployment may be the significant cost savings that packet-switched voice services present over circuit-switched services. And the generous profit margins the ILECs enjoy on the provision of business T-1 private lines far exceed

those that they could expect to earn from the provision of comparable xDSL service; therefore, the ILECs are in no rush to offer customers comparable new services that will produce lower returns for the ILECs.

The ILECs have claimed that regulatory barriers have discouraged them from deploying advanced services by preventing them from utilizing the economies of scale and scope in their networks to integrate advanced transmission services and information services. The existence of the claimed economies of scale is in fact dubious. Thus, it appears that the real reason the ILECs have not deployed advanced services is because they have not had to respond to competing advanced service providers. The ILECs' rush to deploy Video Dial Tone service when they perceived cable television companies as a threat to their telephony markets, and their sudden abandonment of their VDT plans when cable no longer appeared to be a threat illustrates the effective manner in which competition stimulates the ILECs to deploy new technologies.

Clearly, competition is needed to spur the ILECs to deploy advanced services. ILECs will be constrained in their ability to monopolize the advanced services markets only if: (a) there exists robust, widespread, and sustainable facilities-based competition for "last-mile" (*i.e.*, local loop) access that is sufficient to limit ILEC market power and encourage ILECs to freely interconnect with alternative advanced services providers, or risk significant loss of market share; or (b) other advanced services providers have nondiscriminatory access to ILEC bottleneck facilities at prices that are economically correct and equal to those paid by the ILECs' advanced services affiliates.

To encourage and protect competition, the Commission should adopt its proposals to increase collocation opportunities; apply the common carrier obligations of Sections 201 and 202 to markets with a dominant advanced services provider; require ILECs to permit data competitive access providers to obtain aggregated data traffic at the ILECs' switch locations at cost-based, economically efficient rates; apply the affiliate transactions rules to transfers between ILECs and their advanced services affiliates; adopt the reporting requirements for transactions between ILECs and their affiliates; and continue to monitor market conditions while being prepared to adjust its policies if effective competition fails to develop.

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

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Telecommunications Capability)
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CC Docket No. 98-147

**COMMENTS OF THE
AD HOC TELECOMMUNICATIONS
USERS COMMITTEE**

The Ad Hoc Telecommunications Users Committee ("Ad Hoc" or the "Committee")¹ submits these Comments in response to the Commission's Notice of Proposed Rulemaking ("NPRM") in this proceeding.²

¹ The Ad Hoc Committee is an unincorporated association of major purchasers of telecommunications services. These entities have a significant interest in the availability of advanced telecommunications services to them and to society as a whole. For at least the past 20 years, the Ad Hoc Committee has endorsed policies that promote the competitive provision of telecommunications services, and its strong belief in competition is reflected in these Comments.

² *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Notice of Proposed Rulemaking, CC Docket No. 98-147, FCC No. 98-188 ("NRPM") and Memorandum Opinion and Order, CC Dockets Nos. 98-147, 98-11, 98-26, 98-32, 98-78, 98-91, and CCB/CPD No. 98-15 ("MO&O") (rel. Aug. 7, 1998). The Ad Hoc Committee is reviewing the comments filed in response to the related Notice of Inquiry in *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, CC Docket No. 98-146, FCC 98-187 (released August 7, 1998) ("NOI"). Although the Committee has been unable to address positions taken in those comments that may be relevant to the instant proceeding, we will respond to the relevant positions in our Reply Comments in this docket.

I. INTRODUCTION

The NPRM represents a bold, yet measured, and generally balanced effort by the Commission to accelerate the deployment of advanced, broadband telecommunications services in furtherance of Section 706 of the Telecommunications Act of 1996,³ and in a manner that is consistent with the pro-competitive intentions of the 1996 Act.⁴ As a general matter, the Commission's proposals in the NPRM strike the proper balance between the goal of providing meaningful incentives for the incumbent Local Exchange Carriers ("ILECs") to deploy advanced services, and the need to adopt safeguards to stimulate competition in the provision of such services.

The Commission has wisely proposed to rely heavily on marketplace forces and competition to promote the deployment of advanced services that will meet consumer demand. This decision is appropriate in light of (1) numerous previous examples where the Commission's promotion of competition in various markets produced significant benefits for consumers, and (2) the ILECs' business incentives.

Furthermore, the Commission's proposals provide powerful incentives for the ILECs to deploy advanced services by allowing them to provide such services using one of two alternative approaches they alone can elect. On the one hand, ILECs can provide advanced services through separate subsidiaries

³ Pub. L. 104-104 ("1996 Act"), Title VII, § 706, Feb. 8, 1996, 110 Stat. 153 (codified at 47 U.S.C. § 157 note).

⁴ *See, e.g.*, 1996 Act, *supra*, note 3, Joint Statement of Managers, S. Conf. Rep. No. 104-230, 104th Cong., 2d Sess. (Preamble) (1996).

subject to minimal regulation, and therefore can potentially earn substantial profits from such services. On the other hand, an ILEC that elects to provide advanced services on an integrated basis, subject fully to Section 251 of the Communications Act,⁵ should be motivated to deploy advanced services to meet the competition that Section 251 envisions and is intended to facilitate. Few, if any, incentives would be more compelling than those available to the ILECs under either of the scenarios the Commission has proposed.

The Commission now faces the difficult task of creating and maintaining a level playing field on which present and prospective advanced services providers will have equal opportunities to compete. Rules that simply create the opportunity for competitive entry will not suffice. For advanced services markets to reach their fullest potential – and bring consumers the greatest benefits – the Commission should periodically review the state of competition in those markets and remain prepared to adjust its policies as necessary to restore and invigorate a competitive environment.

⁵ 47 U.S.C. § 251.

II. DISCUSSION

- A. THE COMMISSION'S PRO-COMPETITIVE PROPOSALS FOR ENCOURAGING DEPLOYMENT OF ADVANCED SERVICES ARE A REASONABLE BEGINNING, BUT ADDITIONAL SAFEGUARDS ARE NECESSARY TO ENHANCE OPPORTUNITIES FOR COMPETITION IN THE PROVISION OF ADVANCED SERVICES.

The Ad Hoc Committee strongly supports the Commission's pro-competitive proposals for accelerating the deployment of advanced telecommunications services. The Commission has recognized the importance of deploying advanced services to both individual users and the economy generally (*e.g.*, in the area of electronic commerce),⁶ and it has wisely identified competition as the principal force that will drive the efficient deployment of such services.⁷

This emphasis on competition is the correct approach. With appropriate separations requirements, the Commission can promote arms-length transactions between ILECs and their advanced services subsidiaries that would maintain incentives to deploy advanced services while minimizing competitive distortions in the marketplace that could harm competing advanced services providers and unaffiliated information services providers ("ISPs").

⁶ MO&O and NRPM, *supra*, note 2, at ¶¶ 6-8.

⁷ *Id.* at ¶¶ 1, 2, 4.

1. Experience demonstrates the benefits that competition can bring to the advanced services markets.

For decades, the Commission has emphasized the importance of competition to reducing the cost of telecommunications services and equipment, increasing consumer choice, and spurring innovation.⁸ In *MacKay Radio and Telegraph Co.*, 15 F.C.C. 690, 734 (1951), the Commission wrote, "The national policy of the United States is one favoring competition. . . . Competition can generally be expected to provide a powerful incentive for the rendition of better service at lower cost."

Twenty years later, in *Specialized Common Carrier Services*,⁹ the Commission rejected AT&T's opposition to policies promoting the entry of competing specialized carriers, writing:¹⁰

In proposing a policy favoring the entry of new specialized common carriers, we look toward the development of new communications services and markets and the application of improvements in technology to changing and diverse demands. . . . By permitting the entry of specialized carriers, we would provide users with flexibility and a wider range of choices as to how they may satisfy their expanding

⁸ The policy of promoting competition where possible has its roots in the Communications Act and in the Interstate Commerce Act, 49 U.S.C. §§ 10501, *et seq.*, the model for Communications Act. Section 1 of the Communications Act, 47 U.S.C. § 151, charges the Commission with regulating telecommunications so as to protect the public interest, convenience, and necessity. In *FCC v. RCA Communications, Inc.*, 346 U.S. 89, 90 (1953), the Supreme Court held that in determining whether a communications service is in the public interest, "competition is a factor."

⁹ *Establishment of Policies and Procedures for Consideration of Applications to Provide Specialized Common Carrier Services*, 29 F.C.C.2d 870, 881, *recon.*, 31 F.C.C.2d 1106 (1971), *aff'd sub nom. Washington Utilities and Transportation Commission v. FCC*, 513 F.2d 1142 (9th Cir. 1975), *cert. denied*, 423 U.S. 836 (1975).

¹⁰ 29 F.C.C. 2d 870, 876.

and changing requirements for specialized communication service.

Similarly, in Docket No. 19528,¹¹ the Commission sought to eliminate tariff revisions preventing consumers from connecting their own terminal equipment to the public switched network. Among the Commission's stated objectives were the "stimulation and promotion of equipment innovation with the expectation that this will result ultimately in lower costs to be borne by consumers."¹²

These pro-competitive policies continued through the Commission's *Domsat*,¹³ *Computer Inquiry*,¹⁴ and *Resale and Shared Use*¹⁵ proceedings, and they continue today.

In 1996, Congress enacted the fiercely pro-competitive Telecommunications Act,¹⁶ the purpose of which was

¹¹ *Proposals for New or Revised Classes of Interstate and Foreign Message Toll Telephone Service and Wide Area Telephone Service*, First Report and Order, 56 F.C.C.2d 593 (1975), *recon.*, 70 F.C.C.2d 1800 (1979).

¹² 70 F.C.C.2d 1800, 1845.

¹³ *Establishment of Domestic Communications-Satellite Facilities by Non-Governmental Entities*, 35 F.C.C. 2d 844 (1972).

¹⁴ *First Computer Inquiry*, 28 F.C.C.2d 267 (1971), *aff'd in part sub nom. GTE Service Corp. v. FCC*, 474 F.2d 724 (2d Cir. 1973), *decision on remand*, 40 F.C.C. 2d 293 (1973); *Second Computer Inquiry*, 77 F.C.C. 2d 384 (1980), *mod.*, 84 F.C.C.2d 50 (1980), *aff'd*, 693 F.2d 198 (D.C. Cir. 1982); *Third Computer Inquiry*, Phase I, 104 F.C.C.2d 958 (1986), *mod. on recon.*, 2 FCC Rcd 3035 (1987), *further recon. denied*, 4 FCC Rcd 5927 (1989), *Third Computer Inquiry*, Phase II, 2 FCC Rcd 3072 (1987), *recon. den.*, 3 FCC Rcd 1150 (1988), *further recon. den.*, 4 FCC Rcd 5927 (1989), *remanded sub nom. California v. FCC*, 905 F.2d 1217 (9th Cir. 1990); *on remand, Computer III Remand Proceedings*, 6 FCC Rcd 7571 (1991), *vacated in part and remanded sub nom. California v. FCC*, 39 F.3d 919 (9th Cir. 1994); *on remand, Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services*, CC Docket No. 95-20, and *1998 Biennial Regulatory Review - Review of Computer III Safeguards and Requirements*, CC Docket No. 98-10, Further Notice of Proposed Rulemaking, FCC 98-8 (released Jan. 30, 1998) ("Computer III Further Notice").

¹⁵ *Regulatory Policies Concerning Resale and Shared Use of Common Carrier Domestic Public Switched Network Services*, 83 F.C.C. 2d 167 (1980) (subsequent history omitted).

to establish a pro-competitive, de-regulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans by *opening up all telecommunications markets to competition*.^[17]

The Act required, among other things, that the Commission initiate proceedings to open the historic local monopolies to competition.¹⁸ In the *Local Competition* proceeding,¹⁹ the Commission attempted to open the local exchange and exchange access markets to competition by unbundling local exchange carriers' local service elements and defining the rates at which those "unbundled network elements" ("UNEs") could be offered.

The Commission explained that,

under the 1996 Act, the opening of one of the last monopoly bottleneck strongholds in telecommunications – the local exchange and exchange access markets – to competition is intended to pave the way for enhanced competition in *all* telecommunications markets, by allowing all providers to enter all markets. The opening of all telecommunications markets to all providers will blur traditional industry distinctions and bring new

¹⁶ *Supra*, note 3.

¹⁷ S. Conf. Rep. No. 104-230, 14th Cong., 2d Sess. 1)(1996) (Joint Explanatory Statement) (emphasis added).

¹⁸ 47 U.S.C. §§ 251, 252.

¹⁹ *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, First Report and Order, 11 FCC Rcd 15499 (1996) ("*Local Competition Order*"), *vacated in part sub nom. Iowa Utilities Bd. v. FCC*, 120 F.3d 753 (8th Cir. 1997), *amended on rehearing sub nom. California Public Utilities Comm'n v. FCC*, 124 F.3d 934 (8th Cir. 1997), *writ of mandamus issued sub nom. Iowa Utilities Bd. v. FCC*, No. 96-3321 (8th Cir. Jan. 22, 1998), *cert. granted sub nom. AT&T Corp. v. Iowa Utilities Bd.*, Nos. 97-286, 97-829, 97-830, 97-831, 97-1075, 97-1087, 97-1099 and 97-1141 (U.S. Jan. 26, 1998).

packages of services, lower prices and increased innovation to American consumers.^[20]

The Commission should take its lessons in this proceeding from the past. Its efforts to accelerate the deployment of advanced services should be guided by the fundamental, well-established principle that vigorous competition best serves the public interest because it is the most effective means of fostering the introduction of innovative services and products at reasonable prices.

2. The slow deployment of advanced services to date appears to result primarily from the absence of a competitive market for the provision of such services, and not from a lack of demand.

Available evidence strongly suggests that demand for advanced, broadband services (particularly for use with Internet and other information services) far outstrips their current supply and availability. However, identifying the precise nature and quantifying the extent of this shortfall of supply is complicated by the fact that the market for advanced telecommunications services is not currently competitive. In a competitive market, demand will be satisfied by supply, and if one firm fails to meet its customers' demand, others will enter the market and fill the void. This equilibrium does not, however, hold when the market is controlled or heavily dominated by a single provider.

In noncompetitive markets, supply may be deliberately constricted by the monopolist in order to command a higher price and/or for other strategic reasons, such as to limit entry or growth in adjacent competitive markets in which the monopolist is itself a participant or would be participating. Thus where, as in the

²⁰ *Local Competition Order*, *supra*, note 19, 11 FCC Rcd at 15506, ¶ 4.

local exchange/access services market, effective competition is not present, the policy solution for bringing about the availability of advanced telecommunications services requires the adoption of measures aimed at eliminating or reducing entry barriers to bring about a competitive market result, to the extent that this is possible as an economic matter. In addition, it is vital to the continued growth of the Internet that incumbent monopolies deploy and provide advanced services in a manner that maintains and expands the existing level of competition in adjacent Internet services and content markets.²¹

Actual market demand for advanced telecommunications services cannot be measured with precision, because in the vast majority of markets the ILEC is currently the only potential supplier. If the ILEC elects not to provide advanced services at all, to significantly limit their geographic availability, or to tie them with (otherwise) competitive services, the potential consumer demand cannot be identified or readily measured.

However, the robust competition in the supply of personal computers, analog modems, packet data routers, and Internet backbone capacity, not to mention the intense competition among and growth of Internet Service Providers, confirms the existence of pent-up demand for faster Internet access service.

²¹ The importance of this point is reflected in US West's promise that it is "committed to making these services broadly available to independent ISPs on the same basis that it makes them available to itself." Petition of US WEST Communications, Inc. for Relief from Barriers to Deployment of Advanced Telecommunications Services (filed Feb. 25, 1998) ("US West Petition") at 51. Despite this statement, the Minnesota Department of Public Service and the Minnesota Office of the Attorney General recently filed a complaint against US West, outlining a number of severe competitive problems with the way US West is offering DSL service in that state. These problems include, among others, instances of "Internet Slamming," in which customers of other ISPs have allegedly been switched to US West's affiliated ISP against their will, when subscribing to US West's MegaSubscriber DSL service. *Investigation into US West Communications, Inc.'s*

Indeed, competition in these adjacent and often substitute product and service markets has led to rapid and substantial price decreases, and gains in processing speed, bandwidth, and/or mass storage capacities. Businesses, government, and other institutional organizations of all sizes have installed high-speed local area networks and have interconnected those LANs with the Internet and with each other via broadband telecommunications links, bringing the benefits of broadband access to on-line services to millions of people at their place of work. To meet growing demand, Internet backbone capacity has been increasing rapidly. At the end of 1994, the bandwidth capacity of the Internet backbone was approximately equivalent to 20 DS3 lines. By the end of 1997, backbone bandwidth had exploded to the equivalent of about 2,100 DS3 lines, an increase of over 100 times in three years.²² Consumer demand for faster connections to information services is also strongly indicated by sales of increasingly powerful personal computers, and in particular sales of computers designed to provide easy "plug-and-play" Internet capabilities.²³ Further evidence of consumer demand for higher bandwidth in the last mile is also

Provision of MegaBit Services, Complaint of the Department of Public Service and the Office of Attorney General, Docket No. P421/EM-98-471 (Minn. Dept. Pub. Serv., Sep. 10, 1998).

²² K.G. Coffman and A.M. Odlyzko, "The Size and Growth Rate of the Internet," AT&T Labs Research, July 1, 1998, at 10.

²³ Gateway and Compaq have both reported user survey results indicating that ease of establishing online connectivity is the number one factor consumers consider when choosing new PCs. ("Inside Intel's Plan to Speed the Web," The Industry Standard, Sept. 7, 1998, at 36.)

indicated by the rapid adoption of faster modem technologies,²⁴ which attempt to squeeze as much data as possible over existing analog telephone lines.

3. In the absence of viable competition for the provision of advanced services using existing "last mile" connections, ILECs have shown little inclination to deploy such services in a timely fashion.

The ILECs have proven sluggish in their deployment of broadband services to residential customers. For starters, the ILECs have a decades-old legacy of a circuit-switched, voice-oriented network, and have only slowly started to embrace network architectures based upon packet switching and end-to-end digital transport. Advanced services, with their potential to supplant the circuit-switched network with an independent packet-switched architecture for both voice and data, may well be viewed by the ILECs as more of a potential threat than a technological leap to adopt and develop. For example, one recent analysis indicates that packet-switched voice services present a significant cost advantage over circuit-switched telephony today, an advantage that will only increase as the technology matures over the next several years.²⁵ Given its potential to render their embedded circuit-switched networks obsolete, incumbents have little reason to embrace any policy that will speed the

²⁴ Up to and including the current state of the art in analog modems, which are theoretically capable of providing connections at up to 56 kilobits per second (kbps). In the recently released Notice of Proposed Rulemaking in *1998 Biennial Regulatory Review -- Modifications to Signal Power Limitations Contained in Part 68 of the Commission's Rules*, CC Dkt. No. 98-163 (released Sep. 16, 1998), the Commission is seeking to improve network data transmission speeds to enable users of 56 kbps modems and similar devices to download data from the Internet more rapidly.

²⁵ Bart Stuck and Michael Weingarten, "Can Carriers Make Money on IP Telephony?" *Business Communications Review*, August, 1998, at 39. Stuck and Weingarten studied

deployment of advanced services, and have every reason to resist policies that will diminish their control over the deployment of such services.²⁶

Moreover, the incumbents have a strong financial interest in delaying the deployment of low-cost, high-speed digital services. ILEC business T-1 private line services provide a bandwidth capability roughly equivalent to the potential capacity of several types of digital subscriber line (xDSL) services. However, as of July 1, 1998, the ILECs priced their T-1 services at between \$370 and \$1,230 per month,²⁷ some 9 to 31 times the approximate price at which an "affordable" -- and directly substitutable -- mass market xDSL line would need to be offered.²⁸ ILECs may confront a far stronger financial incentive to protect these high T-1 profit margins than to pursue what they consider to be lower margin xDSL services.²⁹

interexchange calls; however, the economics of packet technology are such that local packet-switched calls can be expected to experience analogous cost changes over time.

²⁶ Last month, AT&T initiated market trials of its *Connect 'N Save* IP-based long distance service in Boston, Atlantic and San Francisco. Priced at 7.5 to 8.5 cents per minute all days, all times (depending upon market) for local access and 20 cents per minute for calling card access, *Connect 'N Save* combined local ILEC circuit-switched originating and terminating connectivity with packetized voice interexchange transport. Were IP connectivity to be extended to the home, the need for an ILEC switch to interconnect the end user with an IP-based long distance provider would be eliminated entirely.

²⁷ Information is based on interstate access tariffs for large ILECs. Small ILEC T-1 rates may be much higher, and intrastate rates may vary, but will likely fall within the range stated above.

²⁸ Calculations are based on ADSL monthly rates ranging from \$40 to \$110, depending on speed of connectivity. See Bell Atlantic Press Release: "New Bell Atlantic High-Speed ADSL Service to Shift Internet Surfers into HyerDrive," June 3, 1998, available from www.ba.com/nr/1998/Jun/19980603002.html.

²⁹ The carrier's costs of providing T-1 service and ADSL may differ to some degree; however, it is virtually impossible that the overall cost differential between the two services is significant -- certainly not significant enough to justify the substantial price differences for the services.

Given these incentives, the types of regulatory reform that are needed to stimulate deployment of advanced services are those that work to facilitate and encourage the development of competition for the "last mile" connection to the end user, not reforms that accede to ILEC calls for virtual deregulation of their advanced services now.

4. ILEC claims regarding their lack of incentives to deploy advanced services have no economic basis.

In the case of advanced services, and in particular of xDSL, the ILECs argue that they would have an incentive to meet the demand for advanced services only if the Commission eliminates regulatory restrictions on their advanced services offerings. They claim to want to take advantage of the economies of scope and scale inherent in their networks by integrating the provision of the underlying broadband transmission service with content-based on-line services and deregulating their advanced services. They argue that the diminution of these economies allegedly resulting from a requirement that competitors be allowed to purchase conditioned unbundled loops would undermine the economies of scope and reduce their incentive to deploy advanced services.³⁰ However, the ILEC arguments beg the question of precisely what economies of scope and scale, if any, actually exist as between the last mile connection and advanced services or between advanced transmission services and on-line content-based information services. Upon

³⁰ See, e.g., US West Petition, *supra*, note 21, at 1-5; Petition of Bell Atlantic Corporation for Relief from Barriers to Deployment of Advanced Telecommunications Services (filed Jan. 26, 1998) at 15, 17-19.

closer examination, the actual existence of the claimed economies is highly dubious at best.

The ease of deployment of xDSL greatly reduces the potential for economies between advanced broadband services and the physical "last mile" facility connecting the ILEC wire center with the customer's premises. Indeed, setting aside the costs of collocating a DSLAM in an ILEC central office, competitors theoretically could break even, or even turn a profit, by serving only a very small number of customers.³¹ This being the case, there is little reason to expect that significant economies of scale exist for DSL deployment.

Given the dearth of deployed residential broadband services at present, it is difficult to determine with certainty whether economies will exist between advanced and information services. However, assuming that both affiliated and non-affiliated ISPs will establish a limited number of points of presence in a given area, it is highly unlikely that an advanced service provider will reap any significant economies from delivering bits to an affiliated ISP as compared to any other. Indeed, in a competitive market, an advanced services provider will maximize its revenues if it is able to provide service connecting as many consumers to as many Internet services providers as possible.

³¹ Assume that collocation costs for a given central office are \$40,000, and are amortized over fifteen years, for an annual cost of about \$2,700 per year. Assume further that collocation represents slightly over 50% of total fixed costs, and that other fixed costs (for line cards, the DSLAM, etc.) total \$30,000 and are amortized, on average, over three years. This adds \$10,000 per year, for a total fixed cost of \$12,700. Assume a monthly variable cost of about \$44 per line (for an unbundled conditioned loop, cross connect, transport, overhead, and all other expenses). Under these assumptions, and charging \$50/month for DSL, the break-even point lies at about 180 customers. Eliminating collocation costs from the equation, a competitor could break even with only 139 customers in that central office.

The lack of economies of scale strongly suggests that both advanced services and information services represent sectors ripe for, or already experiencing, robust competition. That competition could only be limited if a firm were permitted to leverage its control over a non-competitive sector (e.g., the physical loops between the wire center and the customer) so as to give it a market advantage in the others. The incumbents would indeed be the only firms able to deploy advanced services, but only if they were permitted not just to continue their monopoly over the last mile, but to extend that monopoly to reduce competition in the emerging sector of advanced services and in the established and highly competitive sector of Internet services. That is, competition in the market will work unless the ILECs are allowed to prevent it from working.

5. The Video Dial Tone case demonstrates the importance of emerging competitors as an inspiration for the ILECs to deploy new network technologies, and the likely outcome when that potential competition is diminished or eliminated.

Recent ILEC history provides a number of examples that illuminate the importance of competition (or potential competition) to spur the incumbents to deploy new network technologies. Perhaps the best example of this need for competitive pressure lies in the ILECs' fleeting pursuit of video dial tone (VDT) services. VDT was a plan established in 1992 under which the ILECs would upgrade their existing networks to provide video and potentially other multimedia services.³²

³² *Telephone Company - Cable Television Cross-Ownership Rules, Sections 63.54-63.58*, Second Report and Order, Recommendation to Congress, and Second Further Notice of Proposed Rulemaking, 7 FCC Rcd 5781 (1992).

A number of ILECs filed VDT plans with the Commission, and for a time it appeared that cable companies and ILECs would compete in each others' markets.³³ Indeed, the ILECs' interest in pursuing the video market was deeply influenced by a perceived threat of competition from cable companies, which had announced plans to upgrade their network facilities to provide broadband and telephony services of their own. Bell Atlantic's VDT application was typical in the way that it highlighted the urgency the ILECs expressed regarding the need to respond to the cable "threat":

While this Application is pending before the Commission, incumbent cable operators in Bell Atlantic's service region, unfettered by Section 214 requirements, will be able to use the detailed economic and business information disclosed in this filing to their competitive advantage as they race to deploy their own broadband multimedia networks. These networks, capable of delivering both cable television service and telephony, will directly compete with the hybrid systems that are the subject of this Application.^[34]

However, the threat of cable company entry into telephony diminished over time, and as it diminished, so did the ILECs' commitment to deploying VDT. Cable television companies discovered mounting technological and interconnection obstacles in adapting their existing hybrid fiber-coax (HFC) facilities to the provision of reliable, high-quality, two-way telephone service. Indeed, it appears that it proved much more difficult to make the transition from the laboratory to the field than the cable companies expected. It may well be

³³ *Id.*, 7 FCC Rcd at 5783-5789, ¶¶ 1-14, *passim*. The larger ILECs that filed VDT plans included Ameritech, Bell Atlantic, Bell South, GTE, NYNEX, Pacific Bell, SNET, and US West.

³⁴ Application of the Bell Atlantic Telephone Companies for authority pursuant to Section 214 of the Communications Act of 1934, as amended to construct, operate, own, and maintain facilities and equipment to provide video dial tone service within geographically defined portions of their telephone service areas, W-P-C 6966, (filed Jun. 16, 1994), at 6.

that, in retrospect, networking technology in the early 1990s simply was not sufficiently developed to provide a cost-effective means of upgrading cable infrastructure. At the same time, the cable companies' core business came under aggressive attack by wireless (MMDS) and direct broadcast satellite (DBS) competitors, causing them to turn their attention to protecting the core cable television market rather than venturing into uncharted territory.³⁵

Accordingly, the cable companies' campaign to enter telephony in the early 1990s began to lose both its steam and its focus. As a result, the major impetus for ILEC entry into video markets — the perceived need to respond to cable's entry into telecommunications — became less important. Bell Atlantic withdrew its multi-region VDT applications in May, 1995, with other RBOCs ultimately following suit. While several other factors came into play as well, it is virtually certain that, had cable remained an imminent competitive threat to the ILECs' markets, they would have gone forward with VDT, or its post-Telecommunications Act successor, Open Video Systems ("OVS"). This example demonstrates that competition has played an important role in spurring ILEC deployment of innovative network technologies, and that reducing or eliminating such competition will greatly reduce the chances that the ILECs will aggressively pursue deployment of such technologies.

³⁵ See, e.g., "Study Citing Cable Decline May Indicate Opportunities for RBOCs," Telco Business Report, March 13, 1995; "Cable Subscriber Growth Slows to 3%; DBS's Full Impact Seen in '96 Results," CableWorld, Dec. 2, 1996 (available from www.mediacentral.com/Magazines/CableWorld/News96/1996120201.htm/539128).

6. The Commission should not rely solely on its proposals to allow ILECs to offer advanced services on an integrated basis or separated basis; it should adopt additional competitive safeguards to foreclose opportunities for anticompetitive conduct that are not addressed by its proposals.

As noted above, the Ad Hoc Committee supports the Commission's proposal to allow ILECs to choose between offering advanced services on an integrated basis, fully subject to Section 251, or offering such services through separate subsidiaries, subject to streamlined regulation.

As the NPRM and accompanying MO&O³⁶ have recognized, however, adequate safeguards are necessary to prevent incumbent carriers from leveraging their market power to discourage competitive entry into advanced services markets. If the ILECs are permitted to monopolize the provision of advanced broadband services, they will have the potential to extend that monopoly to Internet access and other information services as well.

The Commission has recognized in recent proceedings that the BOCs retain monopoly power in exchange access and local exchange service.³⁷ As the Commission explained in the *Computer III* Further Notice,³⁸

³⁶ MO&O & NPRM at ¶¶ 13, 96-97, 102-03.

³⁷ *Computer III Further Notice, supra*, note 14, at ¶ 51 ("BOCs remain the dominant providers of local exchange and exchange access services in their in-region states, and thus continue to have the ability and incentive to engage in anticompetitive behavior against competing ISPs") (footnote omitted). The Commission noted that the BOCs account for approximately 99.1 percent of the local service revenues in their markets. *Id.* at note 151. *See also Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as amended*, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 21905 (released Dec. 24, 1996) ("*Non-Accounting Safeguards Order*") at 21912, n.19.

³⁸ *Supra*, note 14, at ¶ 9.